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ABSTRACT

This literature review examines the functional tasks of the school district central office and the internal dynamics of relations between the central office and district schools (with their principals, teachers, and students). It builds on previous reviews of the role of school boards and superintendents. The review begins by analyzing studies of the central office more or less chronologically (since the late 1970s). Next, it examines the more recent studies by type of study, and then it proceeds to a more functional analysis of the roles of the central office with respect to improving instruction and student achievement, focusing on: decision-making about curriculum and instruction; supporting good instructional practice (high reliability recruitment of principals and teachers, professional development for principals, professional development for teachers, physical capital/material resources, and linkages between professional development and achievement); and linking evaluation research to district policymaking. The review concludes by outlining the kinds of research that still need to occur to further understanding of how the district, and in particular, central office activity, influences student achievement. (Contains 178 references.) (SM)

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BRINGING THE DISTRICT BACK IN

The Role of the Central Office in Improving Instruction and Student Achievement

Martha Abele Mac Iver

Elizabeth Farley

Report No. 65 / August 2003

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Johns Hopkins University

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Report 65

This report was published by the Center for Research on the Education of Students Placed At Risk (CRESPAR), a national research and development center supported by a grant (No. R117-D40005) from the Institute of Education Sciences (IES, formerly OERI) at the U.S. Department of Education. The content or opinions expressed herein are those of the authors, and do not necessarily reflect the views of the Department of Education, any other agency of the U.S. Government, or other funders. Reports are available from: Publications Department, CRESPAR/Johns Hopkins University; 3003 N. Charles Street, Suite 200; Baltimore, MD 21218. An on-line version of this report is available at our web site: *www.csos.jhu.edu*

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THE CENTER

Every child has the capacity to succeed in school and in life. Yet far too many children fail to meet their potential. Many students, especially those from poor and minority families, are placed at risk by school practices that sort some students into high-quality programs and other students into low-quality education. CRESPAR believes that schools must replace the "sorting paradigm" with a "talent development" model that sets high expectations for all students, and ensures that all students receive a rich and demanding curriculum with appropriate assistance and support.

The mission of the Center for Research on the Education of Students Placed At Risk (CRESPAR) is to conduct the research, development, evaluation, and dissemination needed to transform schooling for students placed at risk. The work of the Center is guided by three central themes—ensuring the success of all students at key development points, building on students= personal and cultural assets, and scaling up effective programs—and conducted through research and development programs in the areas of early and elementary studies; middle and high school studies; school, family, and community partnerships; and systemic supports for school reform, as well as a program of institutional activities.

CRESPAR is organized as a partnership of Johns Hopkins University and Howard University, and is one of twelve national research and development centers supported by a grant (R117-D40005) from the Institute of Education Sciences (IES, formerly OERI) at the U.S. Department of Education. The centers examine a wide range of specific topics in education including early childhood development and education, student learning and achievement, cultural and linguistic diversity, English language learners, reading and literacy, gifted and talented students, improving low achieving schools, innovation in school reform, and state and local education policy. The overall objective of these centers is to conduct education research that will inform policy makers and practitioners about educational practices and outcomes that contribute to successful school performance.

ABSTRACT

Criticizing school district bureaucracies has become a growth industry over the past couple of decades. In the face of all this anti-district and anti-central office rhetoric, it is important to recognize the growing number of scholars who are emphasizing the importance of the district in school reform efforts and the research base that examines the role of the central office. Building on previous reviews of school district leadership, this review adds a new focus on the role of school district central offices in improving instruction and raising student achievement. We examine the functional tasks of the central office and the internal dynamics of relations between the central office and district schools (with their principals, teachers, and students). The review concludes with a heuristic model of how the central office influences classroom instruction and student achievement in district schools.

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INTRODUCTION

Criticizing school district bureaucracies has become a growth industry over the past couple of decades. Horror stories of "mismanagement, waste, and corruption" from the infamous 110 Livingston Street (headquarters of the New York City public school system) abound:

> Like a huge dinosaur, it is not particularly smart, has an insatiable appetite, moves awkwardly, yet exudes great power. Like wisteria, it is impossible to control; clip it back and it grows more vigorously than before. Like a giant octopus, its many tentacles reach fearlessly into every aspect of the school system. (Ravitch & Viteritti, 1997, p. 19)

Crowson & Boyd (1992, p. 98) characterized the "internal politics of the organization of urban schooling... [as] remarkably adept at resisting adaptation, at serving the self-interests of school district personnel, and at organizational maintenance above goal attainment." Or, as J.A. Murphy (1994, p. 80) stated more bluntly, reflecting on his first days as superintendent in Charlotte-Mecklenburg:

> The internal probe was straightforward. It confirmed my worse suspicions. Like so many other school districts, the administrative imperatives in Charlotte were all bureaucratic. Central management had become slack, top-heavy, and ponderous. No one in the system was held to high standards—not students, not teachers, not administrators. To the contrary, self-protection and back scratching were the orders of the day... the organization had begun to serve itself—the employees—rather than its customer—students and parents.

And, as a parent symbolized a large school system in a comment to researchers: "It's a mainframe school system in a PC world." (Jones & Hill, 1998, p. 141)

Chubb and Moe (1990) linked higher student achievement to lower levels of bureaucratic organization in schools, setting off a veritable privatization revolution in education despite the methodological critiques of their analysis (e.g., Sukstorf, Wells, & Crain, 1993). Similarly, Peterson's (1999) analysis of National Education Longitudinal Study (NELS) data provided evidence that central district office power had a negative effect on student achievement, through its negative effect on school climate. Some observers have questioned the need for school districts at all. Finn (1991) claimed that "the school is the vital delivery system, the state is the policy setter (and chief paymaster), and nothing in between is very important." Keedy (1994, p. 95) argued that "the pressures for school decentralization are so intense that school sites ultimately will replace districts as the administrative unit in schooling." Others have proposed downsizing or dramatically scaled back functions for districts (Effron & Concannon, 1995; Hill, 1997; Parsley, 1991; Scambio & Graeber, 1991)[1] or large reductions in the administrator-to-student ratio in large school districts (Ornstein, 1989). Restructuring, school-based management (SBM), and charter school development have similarly become the cornerstones of reform efforts for more than a decade, despite the mixed

[1] See Berg, Hall, & Difford, 1996, however, for a study of the negative impact of the downsizing process.

evidence of effectiveness in improving student achievement (e.g., Murphy & Beck, 1995; Murphy & Shiffman, 2002).

In the face of all this anti-district and anti-central office rhetoric, it is important to recognize the growing number of scholars who are emphasizing the importance of the district in school reform efforts and the research base that examines the role of the central office. Much of this work is necessarily focused on larger, urban districts with larger central offices, since more than half the school districts in the United States have only a handful of central office employees (perhaps only a superintendent and a business director) and many have no research and evaluation office (J. Murphy, personal communication, July 3, 2003). But the large majority of children in this country attend schools that are nested within district and state organizations, whose impact cannot be ignored. There is also growing evidence that schools need an effective intermediary in their relationships to the state.

This review of the role of school district central offices in improving instruction and raising student achievement builds on previous reviews of the role of school boards (Land, 2002) and superintendents (Thomas, 2002), where the focus was more on governance and leadership than on the particular activity dimensions undertaken by central office administrators. Though it is particularly difficult in many cases to disentangle the role of the central office administration from its leader (the superintendent or CEO), our focus on the functional tasks of the central office addresses issues beyond the leadership role. We build and expand on earlier literature reviews on the district central office included in Elmore (1993), Hightower (2002), Lasky (2002), Marsh (2000), and J. Murphy (1994), adding an analytical focus on the links between the central office and the process of improving instruction and student achievement. While acknowledging that the central office is the product of a complex historical development (see Weeres, 1993) and lies within a complex political environment influenced by numerous external forces (see Wong, 1992), we focus on the dynamics of relations between the central office and its schools (with their principals, teachers and students). What contribution, if any, does the central office make to its schools to help improve classroom instruction and student achievement? How does recent research illuminate the connections between central office activity and the goal of schooling—student learning?

To select literature relevant to the relationship between school system central offices and student achievement in the United States, we began by conducting an ERIC database search using the keywords "central office and achievement," "district office and achievement," and "evaluation office." Our decision to focus on literature produced since 1978 was an attempt to make a comprehensive look at work over the past quarter century a manageable task. This search yielded numerous studies only remotely related to student achievement. Based on analyses of these ERIC abstracts, we decided to exclude literature focused on school system functions, such as food service, facilities, custodial services, transportation, and technical budgeting issues. Since the issue of school- or site based management (SBM) has already received considerable attention (e.g., Leithwood & Menzies, 1998; Mohrman & Wohlstetter, 1994; Murphy & Beck, 1995; see review in Land, 2002), we did not attempt to include all literature with that particular focus, though some articles primarily discussing the role of central office under SBM were relevant to our focus on instruction and achievement. We also excluded evaluations of particular programs or reform efforts that were only tangentially related to the central office. Of particular interest for this review were publications or

reports focused on the role of central office in (1) curriculum and instruction, (2) professional development (both for teachers and principals), (3) the implementation of specific reforms (either externally or internally developed) to improve instruction and student achievement; and (4) research and evaluation related to student achievement. Bibliographies from publications identified in the ERIC search provided an additional source of publications for the literature review, selected according to the same criteria described above.

The review proceeds by first analyzing studies of the central office more or less chronologically (since the late 1970s). We then examine the more recent studies by type of study, and then proceed to a more functional analysis of the roles of the central office with respect to improving instruction and student achievement. We conclude by outlining the kinds of research that still need to occur to further our understanding of how the district, and in particular, central office activity, influences student achievement.

EARLY STUDIES OF THE DISTRICT CENTRAL OFFICE

Research on the role of the district office in improving instruction and student achievement built on the foundation of the effective schools research (e.g., Brookover, Beady, Flood, Schweitzer, & Wisenbaker, 1979; Brookover & Schneider, 1975; Edmonds, 1979; Lezotte, Edmonds, & Ratner, 1974; Lezotte, Hathawaway, Miller, Passalacqua, & Brookover, 1980) and critics who noted the failure of this approach to consider the district context (e.g., Cuban, 1984; Purkey & Smith, 1983). Researchers such as Wimpelberg (1987) pointed out candidly that despite the evidence of effective schools here and there, most teachers and principals do not exhibit the characteristics of those found in "effective schools" and there is a need for district leadership to help assure that more schools become effective schools. Crandall (1984), Eubanks and Levine (1983), and Fullan (1985) argued from research findings that central office administrators are crucial in the school improvement process. As Corbett and Wilson (1992, p. 46) put it:

> Depending on which school a child attends and to which classrooms the child is assigned, the student will encounter a varied array of programs and activities.... From the students' perspective, then, the quality of their educational experiences rests on the 'luck of the draw.' The central office instructional role is to remove this luck factor from the instructional program, i.e., to ensure that idiosyncratic variations in programs, people, and policies do not result in systematic differences in the quality of education for children.

The proliferation of research and discussion about "effective schools" spawned a National Center for Effective Schools Research and Development (NCESRD) at Michigan State University and the University of Wisconsin-Madison during the 1980s and early 1990s, as well as an "Effective Schools Process" national training program that influenced numerous school districts throughout the country (see Bullard & Taylor, 1993, for a selected list of districts with successful implementation). Though the "effective schools" principles, with their emphasis on instructional leadership by the principal, coincided well with a growing emphasis on school-based management, the theme of what

districts could do—and needed to do—to help schools become "effective schools" became more prominent through various case studies of districts that had adopted the process (Bullard & Taylor, 1993; Hall, Putnam, & Hord, 1985; Meyers & Sudlow, 1992; Middleton, Smith, & Williams, 1994; Stoll & Fink, 1992). These studies emphasized the importance of the superintendent's leadership, the transformation of central office culture to be more flexible and service-oriented rather than regulatory and monitor-oriented, and the role of district-wide staff development in effective school principles at all levels. As one of the district case studies in Bullard and Taylor (1993) illustrates, useful district/central office support includes technical assistance in areas, such as monitoring academic progress, following a curriculum review and development cycle, establishing a positive school climate, providing staff development that addresses teacher expectations for student achievement, and creating structures that will develop new administrative leaders for the district. The research quality of studies varied widely, from the primarily journalistic approach of Bullard and Taylor (1993) to the more rigorous longitudinal study of implementation and outcomes (including comparison district outcomes) of Meyers and Sudlow (1992).

Several other externally developed models of district-level reform also surfaced in our literature search. The Achievement-Directed Leadership (ADL) program (Biester, et al., 1983; Biester, Kruss, Meyer, & Heller, 1984; French, 1984; Graeber et al., 1984; Helms & Heller, 1985; Helms et al., 1985; Larkin, 1984), developed by the Philadelphia-based Research for Better Schools (RBS) organization (and funded by the National Institute of Education from 1977 to 1985), had evidence of student achievement gains in reading and mathematics directly correlated with the level of program implementation. The program involved training for central office personnel first in how to implement research-based practices for effective instruction and monitor progress, followed by training for principals and then for teachers. Though ADL does not appear to have continued past 1985 as a research-based intervention, its principles seem to have survived in the RBS school improvement consultations and in its tools for district leaders (Beyer & Houston, 1988; Buttram, Corcoran & Hansen, 1989; Dusewicz & Beyer, 1991; McGrail, Wilson, Buttram, & Rossman, 1991; Wilson, 1985; Wilson & McGrail, 1987). The Onward to Excellence program developed by the Northwest Regional Laboratory (NWREL) trained district and school staff in a "10-step process designed to become a tool for cyclical school improvement" (Blum & Butler, 1987, p. 7). Other "models" tended to be found in books of advice for district leaders regarding how the central office could be organized and mobilized for monitoring progress, planning improvement, and implementing action to improve achievement (e.g., Genck, 1983; Klausmeier, 1985; Leithwood, Aitken & Jantzi, 2001; Mauriel, 1989). These were often based on the authors' consulting experiences with school districts.

Apart from specific district level interventions such as the ADL program described above, studies conducted before the 1990s found little district attention to curriculum and instruction issues, or equipping school principals to lead effectively in this area (Crowson & Morris, 1985; Floden et al., 1988; Floden et al., 1984; Hannaway & Sproull, 1978-79; Rowan, 1982). As Elmore (1993) summarized this literature, there was a tendency for "key decisions on curriculum and teaching [to be] passed from states to districts, from districts to principals, and from principals to teachers, with little effective focus or guidance" (p. 116). In a later analysis, Elmore (2000) situated the lack of attention by most central office administrators to the instructional or technical "core" within the

theory of loose-coupling (Meyer & Rowan, 1992; Weick, 1976). As Elmore (2000, p. 6) summarized it:

> The administrative superstructure of the organization—principals, board members, and administrators—exists to 'buffer' the weak technical core of teaching from outside inspection, interference, or disruption. Administration in education, then, has come to mean not the management of instruction but the management of the structures and processes around instruction.

Some early studies of districts sought to identify district level and central office characteristics that could explain systemic improvement or higher than expected student achievement (Murphy & Hallinger, 1988; Pajak & Glickman, 1987) or at least the focus on instructional improvement that had attracted regional attention (Corbett & Wilson, 1991). Studies of successful or effective schools (e.g., Corcoran & Wilson, 1986) yielded findings about the role of the central office in contributing to their success (Miller, Smey-Richman, & Woods-Houston, 1987). Common themes emerged from these studies, including the importance of a focused message from the central office about the importance of student achievement and its relationship to quality instruction. Effective districts followed through on this message by providing time for teaching staff to interact regularly with each other about instruction and receive professional development, as well as specific personnel to support teacher learning about how to improve instruction. Other case studies of particular districts (Fitzgerald, 1993; Shipengrover & Conway, 1996) also emphasized the role of central office staff in providing professional development for teachers and focusing everyone on instruction and student learning. The national study of school-based reform conducted by Quellmalz, Shields, and Knapp (1995) included surveys of staff in more than 1500 districts. It echoed previous conclusions and contributed additional advice about what district offices could do to support school-based reforms: provide professional development opportunities, find an appropriate balance between setting and waiving particular requirements, manage forces and conditions outside the school's control (teachers' unions, state requirements), and help schools to obtain additional resources. One drawback to these studies was the absence of qualitative data from comparison districts where student achievement was not higher than average or had not improved over time. Though their findings were intuitively reasonable, it was not possible to make causal conclusions attributing higher student achievement to these district-level factors.

Later studies of particular district offices fall into several different types: 1) studies of a group of "positive outlier" districts in a state; 2) case studies of central office action in particular large urban school districts such as Philadelphia, New York District #2, and San Diego; and 3) comparative studies of several districts from several states.

POSITIVE OUTLIER DISTRICT STUDIES

Murphy and Hallinger (1988) were among the first to identify a group of high performing districts and their distinguishing characteristics. Their study of 12 "instructionally effective" school districts in California found an established instructional and curricular focus, consistency and coordination of

instructional activities, strong instructional leadership from the superintendent, and an emphasis on monitoring instruction and curriculum. In "organizational dynamics," these districts exhibited (1) "rationality without bureaucracy," (2) "structured district control with school autonomy," (3) a "systems perspective with people orientation," and (4) "strong leadership with active administrative team" (collaboration with strong leadership).

More recent studies of districts identified as high performing, relative to the poverty level of their students, have been conducted in Texas (Ragland, Asera, & Johnson, 1999; Skrla, Scheurich, & Johnson, 2000) and North Carolina (Public Schools of North Carolina, 2000). The common themes emerging from these studies in relatively high-performing or improving districts largely echoed those of Murphy and Hallinger. They included: 1) a climate of urgency regarding improved achievement for all students; 2) a sense that achievement was the primary responsibility of every staff member in the district; 3) a shared sense of the central office as a support and service organization for the schools; 4) a primary focus on improving instruction, accompanied by a high level of resources devoted to coherent professional development linked to research-based practices; 5) focused attention on analysis and alignment of curriculum, instructional practice and assessment; 6) professional development for principals in interpreting data to make good instructional decisions.

A study by Education Commission of the States researchers (Armstrong & Anthes, 2001) examined six districts in five states that had used data to improve student achievement. They found in each district office a "service orientation" culture focused on supporting principals and teachers to use student data for continuous improvement, combined with structural mechanisms for training and assessments. Cawelti and Protheroe's (2001) study of six high-poverty districts (Sacramento, Houston, two smaller districts from Texas, one from Idaho, and one from West Virginia) all with system-wide (or notable, in the case of the larger urban districts) improvements in student achievement, found a similar focus on equipping teachers to use research-based instructional practices and aligning curriculum with test content, as well as decentralizing management and budgeting at the building level.

The most comprehensive outlier study thus far, undertaken by Manpower Demonstration Research Corporation (MDRC) for the Council of Great City Schools (Snipes, Dolittle, & Herlihy, 2002), involved retrospective case studies of three districts (Sacramento, Houston, Charlotte-Mecklenberg) and a fourth "district within a district" (the New York City Chancellor's district). Each of these urban districts had been identified as showing consistent student achievement gains (at higher levels than their respective states) for at least three years and narrowing the "achievement gap" between White and minority students. Methodologically stronger than previous studies, this one included comparison districts in which student achievement had not similarly improved. Conclusions drawn by the authors from this exploratory study included the importance of:

1. A shared focus among school board, superintendent, and community leaders on student achievement as the primary goal, as well as a common vision about how to improve it;

2. The "development of instructional coherence" by providing standards, instructional frameworks, and intensive professional development to principals and teachers; and

3. The preparation of school-level personnel for data-driven decision-making.

Snipes and colleagues argue that it is the combination of these components (rather than any one in isolation) that has made these districts effective in raising student achievement.

DISTRICT CASE STUDIES

Recent case studies of district initiatives in major urban school systems to improve instruction and student achievement have focused primarily on Philadelphia, New York's District #2, and San Diego. While the Chicago reforms have received much attention (e.g., Bryk, Sebring, Kerbow, Rollow, & Easton, 1998, and numerous studies conducted by the Consortium on Chicago School Reform), there has been little focus on the role of the district or central office per se in improving instruction and student achievement. As Quinn, Stewart, & Nowakowski (1993) noted in their evaluation of systemwide school reform in Chicago, "There is little indication across the case sites that student achievement is the primary target of this reform ... Chicago school reform is primarily about governance and structure, not about curriculum and instruction" (p. 5). Bryk and his colleagues (1998) concluded that the central office provided little assistance to Chicago schools, and that the lack of district infrastructure for capacity building at the school level helped to explain why the reforms were not particularly successful. Similarly, the Bay Area School Reform Collaborative (BASRC), an Annenberg-funded initiative, includes clusters of schools within districts, but has only recently begun to focus on districts. So, its associated evaluation reports do not yet contribute to the literature on district-level efforts, except to note the willingness of districts like the San Bruno Park Elementary Schools District to adopt the BASRC "Cycle of Inquiry" reform process district-wide (Bay Area School Reform Collaborative, 2001, p. 11).

Philadelphia, the only whole district to receive funding from the Annenberg Challenge (for the Children Achieving initiative), was studied intensively by scholars from the Consortium for Policy Research in Education (CPRE). Their work yielded a report focused specifically on the role of the central office in pursuing instructional reform and improved student achievement (Foley, 2001), as well as reports that touched on district-level variables and the role of central office personnel (e.g., Christman, 2001; Spiri, 2001). Foley (2001) uncovered significant desires of principals and school-based staff for more district support in selecting and implementing instructional programs that would help to raise student achievement. This conflicted with the reform initiative's intentions of promoting decentralized, school-level decision making. At the same time, some principals voiced frustration over too much control by cluster leaders and too little freedom to pursue their own ideas (Spiri, 2001).

Studies of district reform efforts in New York's District #2 have focused on professional development for principals in instructional leadership (Elmore & Burney, 2000; Fink & Resnick, 1999), teacher professional development (Harwell, D'Amico, Stein & Gatti, 2000; Resnick & Glennan, 2001), and content-specific principles of instruction (D'Amico, van den Heuvel, & Harwell, 2000; Stein & D'Amico, 1999; Stein, Harwell & D'Amico, 1999)—categories of district-level involvement, which we analyze more fully later in this review. Studies of a similar reform

effort in San Diego (Darling-Hammond, Hightower, Husbands, LaFors, & Young, 2002; Hightower, 2002; Stein, Hubbard, & Mehan, 2002), also spearheaded by Anthony Alvarado (leader of District #2 during the reforms discussed above), echo many of these themes. The Learning Research and Development Center at the University of Pittsburgh, which has hosted the High Performance Learning Communities (HPLC) project analyzing District #2, also hosts the Institute for Learning (IFL) program that is using the same district-level instructional principles in working with nine other urban districts,[2] though reports are not yet available on them.

Evidence of a link between these district office initiatives and improved student achievement is only tentative. Elmore and Burney (1997) noted that District #2 was 16th of 32 New York City districts in 1987 when Alvarado became superintendent, where one would expect it to be demographically, but in the latter years of the improvement strategy, it had advanced to become second ranking. According to the High Performance Learning Community report (HPLC, 2000), between 1988 and 1998 the percentage of students performing at grade level in reading rose from 56% to 73% and in mathematics from 66% to 82%. D'Amico, Harwell, Stein, and van den Heuvel (2001) also sought to link district efforts to implement instructional improvement to student achievement, but their study covered just one year. They presented evidence that achievement is higher in classrooms where teachers report having received high quality professional development in mathematics and claim to be using the Balanced Literacy approach (compared to other classrooms). But there are obvious limitations to a cross-sectional study using teacher perceptions as the primary independent variable. Similarly, Resnick and Harwell (2000) found mixed evidence from analysis of cross-sectional data regarding the relationship between District #2 model variables and student achievement, based on regression and path analysis using school-level achievement and school-level rating scores on model components. Though there was a significant relationship between quality of teaching and student achievement, the study failed to find evidence of the more salient model intervention variables of professional development and principal leadership. Harwell and colleagues (2000) also failed to find a relationship between teachers' exposure to professional development and any reduction in the achievement gap in District #2, though it is unclear how representative the teacher sample was, given the low return rate of teacher surveys (12%). Darling-Hammond and colleagues (2002) documented improved student achievement in San Diego in aggregate levels over time, but more detailed analyses have yet to be completed in that district. Studies of Philadelphia's "Children Achieving" initiative found modest gains in student achievement, particularly at schools with stronger implementation of the reforms (school leadership focused on instruction, professional community among teachers, curriculum-based professional development, and effective use of data) (Christman, 2001; Corcoran & Christman, 2002; Tighe, Wang, & Foley, 2002). The initiative ended in 2000, however, and gains were not sufficient to prevent the state's decision to pursue a privatization strategy (Gewertz, 2002).

[2] As listed in Resnick & Glennan (2001), these are Austin TX, Bridgeport CT, Columbia SC, Los Angeles CA, Kansas City MO, Pittsburgh PA, Providence RI, St. Paul MN, and Springfield MA.

COMPARATIVE DISTRICT STUDIES

Comparative studies of district central offices are essential to further understanding of their impact on student achievement. Such studies, however, are few. few. The Smith and Mickelson (2000) study comparing student achievement outcomes in Charlotte-Mecklenburg Schools (CMS) with those in two other urban North Carolina districts concluded that the much-acclaimed reforms in Charlotte (Doyle & Pimental, 1993; Murphy, 1995) had not resulted in that school system outperforming similar districts in the state (except in AP and higher level courses) (but see Snipes, Dolittle, & Herlihy, 2002 for evidence of positive effects in later years). Though the reforms focused the attention of all district personnel on accountability standards and student achievement, they involved significant cuts in central office staff and relied on school-based management rather than on school capacity building by central office personnel. The study suggests that accountability and standards-based reforms may be necessary but not sufficient for achieving significant achievement outcomes.

A comparative study of three unnamed urban districts (Corcoran, Fuhrman, & Belcher, 2001) explored the "role of central office staff members in shaping and supporting instructional reforms" (p. 79), and identified factors that constrained the effectiveness of central offices. At the "design and adoption" phase of the reform process, these central offices (like Philadelphia in the Foley, 2001 study) wrestled with how much they should prescribe reform practices to schools and how much freedom they should allow, and one district was tempted by funding to promote a strategy that no one really believed would be effective. As Corcoran and colleagues (2001, p. 80) summarized it: "The emergence of evidence-based decision-making was hampered by whims, fads, opportunism, and ideology." In the "coordination and support of reform" phase, where the focus was on professional development, the districts were pulled in several directions simultaneously and did not demonstrate a commitment to measuring the effectiveness of professional development on teacher practice and student learning. The CPRE researchers noted that the districts were under pressure to achieve results quickly and scale up practices before the evidence was in on their effectiveness, and that changeover in the superintendency exacerbated the situation.

In reporting on findings from a larger CPRE study of 22 districts in eight states over two years, Massell (2000, p. 1) emphasized that districts are increasingly giving attention to (1) "interpreting and using data," (2) "building teacher knowledge and skill," (3) "aligning curriculum and instruction," and (4) "targeting interventions on low-performing students and/or schools." Arguing that the district office role is crucial for building a school's capacity in all these areas, Massell (2001) identified challenges that districts face. These included helping schools understand how to improve their student achievement data to determine classroom instruction, and equipping teachers to accomplish this. But this analysis did not address the relative effectiveness of different central office strategies in improving student achievement. Goertz's (2001) analysis, based on the same large study, zeroed in on how differences in state accountability systems influence the district role. Districts in states with more high-stakes accountability systems had a structure that helped them to focus on student achievement, but this did not guarantee changes in classroom instructional practices. Districts' needs for resources (particularly human resources) to build capacity among principals and teachers emerged as a crucial issue from this study.

Other ongoing projects and studies involving multiple districts have not yet produced research reports. The Annenberg Institute for School Reforms' "National Task Force on the Future of Urban Districts" (School Communities that Work) is completing design proposals and intends to work "directly with several partner districts and organizations to test, implement, and evaluate new designs and practices" (Annenberg Institute, 2002).

The Cross City Campaign for Urban School Reform, "a national network of school reform leaders from nine cities—Baltimore, Chicago, Denver, Houston, Los Angeles, New York, Oakland, Philadelphia and Seattle" (Cross City Campaign, 2002)—is engaged in a "multiyear research project to examine how district policies help or hinder school improvement in Chicago, Milwaukee, and Seattle" (Johnston, 2001, p. 19). Thus far, it has produced only a prescriptive primer on "Reinventing Central Office" (Berne et al., 1995) and no research-based reports on the impact of central office activity on improved instruction and achievement outcomes.

Groups such as the National Commission on Teaching and America's Future (2002) have compiled resources for districts, such as a District Policy Inventory that are practice-oriented rather than research-oriented. There are district networks connected to other reform efforts, such as the Center for Leadership on School Reform (the "Schlechty group"), but no comparative district research studies have as yet emerged from these projects.

THE ROLES OF THE CENTRAL OFFICE IN IMPROVING INSTRUCTION AND ACHIEVEMENT

The following sections examine various dimensions of the central office role relevant to the kind of instruction that will yield improvement in student achievement. Building on the framework outlined by Corcoran and colleagues (2001), we divide the central office role into several components:

1. Decision-making about curriculum/instruction (with a section analyzing research on the role of the central office in selecting and implementing externally developed reform models);

2. Supporting good instructional practice through professional development (for principals and teachers) and other responsive administrative practices; and

3. Evaluating results (including the role of the research and evaluation office) and the feedback loop from evaluation to decision-making and supporting instructional practice (including scaling up good practices).

We build on the theoretical framework of Spillane and Thompson (1997, p. 199), who measure district capacity for reform by the dimensions of "human capital (knowledge, skills, and dispositions of leaders within the district), social capital (social links within and outside of the district, together with the norms and trust to support open communication via these links), and financial resources (as allocated to staffing, time, and materials)."

Decision-making about Curriculum/Instruction

As Corcoran and colleagues (2001, p. 79) noted, the first task in instructional improvement is "deciding what to do." The motto in an era of restructuring and school-based management is to leave this decision to the schools themselves. Those advocating this position assume, either consciously or unconsciously, a relatively high level of human and social capital at the school level—that the school has an instructional leader who knows what curriculum will best ensure student learning and high achievement, and a collegial staff that can deliver quality instruction and promote high levels of learning. While many fine examples of such schools exist, they generally do not constitute a majority, especially in large cities with high levels of poverty.

In the current policy context dominated by the themes of accountability and performance standards, educational leaders are increasingly aware of the need for decision-making about curriculum and instruction to be linked to standards. Various studies have also shown that schools and their teachers need the district central office to help them articulate and interpret state frameworks and/or student performance standards and to help teachers know what to do in the classroom so that students will be able to meet those standards (Foley, 2001; Steineger & Sherman, 2001). Central office staff members have participated with other district personnel in developing academic standards for Chicago (Barth, 1994) and Philadelphia (Simon, Foley, & Passantino, 1998). Firestone, Rosenblum, and Webb (1987) pointed out how state policy contexts, such as the existence of a minimum competency test for graduation that is the main state accountability measure, can discourage urban districts from setting content standards for high school courses(a practice they found in other large urban districts not constrained by a minimalist state test). Fairman and Firestone (2001) linked differences in how district central offices build school-level capacity for understanding state standards and teaching effectively for state assessments to both state policy contexts (degree of high-stakes accountability) and beliefs and orientations of district leaders.

Districts such as Philadelphia that have sought to promote decentralized decision-making about curriculum have found the need to become more prescriptive as school leaders demonstrate their need for guidance in selecting appropriate curriculum for standards-based instruction (Foley, 2001; Simon, Foley, & Passantino, 1998). As these authors pointed out, Philadelphia teachers needed more concrete help with unit and lesson planning to address the vague standards developed under the Children Achieving initiative. Decentralization efforts in Riverside, California resulted in too much fragmentation in curriculum and instruction, leading that district to specify a scope and sequence and research-based instructional techniques (Berry, 1985). Grossman, Thompson, and Valencia (2001) noted the particular difficulties encountered by new teachers who receive only performance standards with no other guidance from the school or central office on how to structure instruction to meet those goals. CPRE's longitudinal study of accountability systems in districts and schools in 10 states identified roles for the district office in helping schools to meet state standards, including guidance to principals and teachers in standards-based instruction and curricular frameworks (Goertz, 2001; Massell, 2000). Unfortunately, as evidenced by Corcoran, Fuhrman, and Belcher's district study (2001), central offices often become bogged down by ideological or local political constraints and fail to provide the kind of curriculum and instruction guidance needed by the schools they serve.

Particularly now in a political context that promotes "evidence-based" instructional practices and provides resources (through the Obey-Porter Comprehensive School Reform Demonstration Act) for schools and districts to adopt proven whole-school reform designs, districts are faced with choices among internally developed curriculum and instruction designs and externally developed reform models (many with their own defined curricula and instructional models). Even though many reform models do not specify particular curricula, the process of adopting a reform model fits into the general category of "deciding what to do."[3] Studies of districts that encouraged and even mandated schools to select a research-based whole-school reform model (Datnow, Hubbard, & Meehan, 2002; Datnow & Stringfield, 2000; Yonezawa & Stringfield, 2000; Ross, 2001) emphasized the importance of district support through all stages of the implementation process (dissemination of information about models, helping schools to select models that are appropriate for their situation, provision of ongoing support, including waiving conflicting requirements, as models are implemented in the schools). Datnow and Stringfield (2000) found a direct relationship between the level of district support and the level of reform model implementation in the schools. Ross (2001) stressed the difficulties involved in a district supporting too many different whole-school reform models (a finding echoed by Corcoran and his colleagues, 2001, with respect to various district initiatives), and also pointed out problems with requiring either very high-achieving or very low-achieving schools to implement an externally developed model. The high-achieving schools do not need to do so, and will probably resent it, while the very low-achieving schools probably do not have the capacity, without considerable intervention from the central office, to begin implementing such a model. Several studies (Datnow & Stringfield, 2000; Ross, 2001) highlighted the problems resulting from changes in district leadership, resulting in reduced support from the central office for implementation of the externally developed reform models. Studies of the New American Schools (NAS) implementation and performance (Berends, Kirby, Naftel, & McKelvey, 2001; Bodilly, 1998; Bodilly & Berends, 1999) also noted the importance of stable leadership, flexibility, and support in resource allocation from the district office in sustaining implementation of the NAS models. Echoing many of these findings, Murphy and Datnow (2003) also pointed out that critical roles of the central office include "helping schools see how school-level change efforts nest within the district's goals and the state's reform agenda" (p. 402) and assuring stability of school level leadership.

Reform model developers and advocates have a particular perspective on the role of the district office in supporting externally developed reform model implementation. Mac Iver and Balfanz (2000) analyzed the role of the district office from their perspective as developers of Talent Development Middle Schools. Critiquing the contemporary commitment to site-based management among so many educational reformers, they argued that urban schools, like small businesses, are as likely to fail as to succeed due to lack of resources (especially human resources), lack of technical knowledge about effective curriculum and instruction, and unstable operating environments (teacher and principal mobility). There is a critical role for the school district office in building an infrastructure that provides: 1) continual professional development; 2) in-class implementation support for reform models; 3) organizational assistance (building effective school-organizational structures, like small learning communities; providing budget information early, minimizing last-

[3] To avoid unnecessary repetition, this discussion of the district role vis-à-vis externally developed reform models touches also on the theme discussed in the next section, supporting good instructional practice.

minute policy and staffing changes; and adequate time for teachers to work collaboratively); and 4) productive use of data (particularly student achievement data). Without cooperation from the school district on these issues, even assistance from external partners and model development teams may be undermined.

Reflecting on the role of the district office in supporting Success for All (SFA), Slavin and Madden (1999) reported that districts seem to be more effective in sustaining a liaison function (through a district SFA coordinator) than providing for training and implementation monitoring with schools. School districts have often marginalized reform initiatives, such as SFA, by assigning them to low-ranking central office personnel who may already have numerous other responsibilities and no experience in SFA schools. The SFA developers envision future recruitment of SFA principals for central office coordinator positions, so that they will be able to function more effectively in providing training and follow-up to schools. In a study of SFA in three California districts and one district in a southeastern state, Datnow and Castellano (2003) found that district-level support for SFA was critical, but depended largely on how well SFA schools were raising student test scores in the high-stakes accountability context in which the districts operated. If scores did not rise sufficiently, district support for SFA declined.

Studies of the role of the central office in supporting the Accelerated Schools model (Davidson, 1993; Finnan & Meza, 2003; Kuo, 1998) found that district office support could be helpful but was not necessary for schools to improve. District office support "can help foster accelerated schools process" (Davidson, 1993, p. 24) through (1) facilitating school level buy-in of restructuring, (2) supporting the development of site-based decision-making, (3) providing professional development, (4) revising evaluation procedures, and 5) creating organizational structures to support Accelerated Schools (Kuo, 1998). Echoing themes uncovered in earlier district office studies, central office staff in the three suburban districts supportive of Accelerated Schools in the Kuo (1998) study viewed their roles as "keeper of the mission/vision," "promoter of risk-taking and entrepreneurial activity," "capacity builder," and "service provider." Kirby and Meza (1995) summarized the developers' expectations of the district office in supporting the coaching model for training teachers in Accelerated Schools: recommending coach candidates, providing release time to coaches, nurturing schools involved in the Accelerated Schools process, and communicating to district stakeholders about the Accelerated Schools process. In their study of Accelerated Schools in Memphis, Finnan and Meza (2003) noted how district leadership change may have eliminated official support for Accelerated Schools as a comprehensive reform design, but those schools that had chosen it willingly and internalized the principles of the reform model continued to demonstrate characteristics of Accelerated Schools.

Echoing themes articulated by others, studies of the Coalition of Essential Schools (CES) (Cushman, 1991; Hall & Placier, 2003) pointed out the importance of district flexibility in allowing school-based management, though a district-supported professional development center in Louisville that emphasized CES principles was an important component of district support for the reform (Cushman, 1991). A study of the Modern Red Schoolhouse reform (Kilgore & Jones, 2003) noted a lack of support from the central office in demonstrating familiarity with the reform design and providing material resources, issues that were detrimental to implementation. Studies of ECRI

(Huberman, 1981; Huberman & Crandall, 1983), AVID (Hubbard & Mehan, 1999), and other reforms (Crandall, 1984; Crandall & Eiseman, 1983; Loucks & Cox, 1982) also emphasized the importance of central office support, especially in assuring that resources are available for professional development. Studies of Core Knowledge (Datnow, Borman, & Stringfield, 2000; Mac Iver, McHugh, & Stringfield, 2000) emphasized the need for districts to provide resources (especially teacher planning time) and pointed out how districts were influenced by state accountability systems to put pressure on Core Knowledge schools to devote more time to activities linked to test preparation, thus undermining implementation. Mac Iver's (2003) study of Direct Instruction (combined with Core Knowledge) in Baltimore indicated that districts could indeed institutionalize reforms within their central office structure, though the reform developer and others involved in implementation identified disadvantages as well as advantages to such structured district "support." Though the district office may offer formal support for the reform, it may also guide schools' decisionmaking differently than the reform developer would advise, and hinder implementation by imposing uniform requirements across schools—requirements that the reform developer would not support (Berkeley, 2002).

In addition to research studies that address the role of the district in supporting comprehensive school reform models, resource manuals for district leaders have now been developed by federally funded regional laboratories and other organizations to help district administrators through the process of helping schools consider, select, implement, and evaluate the effects of a reform model (e.g., Hassell, 1998; Walter, 2002; Walter & Hassell, 2000; Yap, Douglas, Railsback, Shaughnessy, & Speth, 2000).

While studies suggest that externally developed reform models or "promising programs" have advantages over locally developed reforms in systemically raising students' academic achievement (Herman et al., 1999; Nunnery, 1998; Stringfield et al., 1997), the importance of "co-construction" and ownership of the reform by those principals and teachers engaged in implementing it has also been highlighted (Datnow, Hubbard, & Mehan, 1998; Datnow, Hubbard, & Mehan, 2002). District offices will continue to experience a tension when choosing between externally developed reform models and more locally developed initiatives, or they may so adapt externally developed models to the local situation that the reform developers are tempted to disown them (depending on student achievement results).

Supporting Good Instructional Practice

Once decisions have been made about what curriculum and instructional practices to put into place, the issue of "how to get it done" (Corcoran et al., 2001)—supporting good instructional practice and coordinating the curricular decisions—comes to the fore. Again, advocates of school-based management would leave this function to the school leader, who would analyze the professional development needs of the staff and could choose to purchase services from the outside as well as from the central office. But this begs the question of how schools acquire leaders who will know how to support good instructional practice and faculties who will implement it. As Spillane and Thompson (1997) pointed out, a primary issue for the school district is one of human capital. How

are personnel recruited in the first place? How are principals developed as leaders? And how are teachers helped to deliver excellent instruction?

High Reliability Recruitment of Principals and Teachers

Numerous studies have addressed the crucial need for district offices to play a more effective role in recruiting both principals and teachers. As Stringfield (1997) pointed out, school districts need to learn from the high reliability organizations that "recruit extensively." Research has demonstrated that districts often lose more highly qualified candidates because of "inadequate management systems and cumbersome hiring procedures that discourage good applicants by large numbers of steps in the application process, demeaning treatment, unreturned telephone calls, and lack of timely action" (Darling-Hammond, Berry, Haselkorn, & Fideler, 1999, p. 211; also see Wise, Darling-Hammond, & Berry, 1987). Bureaucratic practices in urban districts are particularly problematic, creating inefficiencies and delays that cost the district good candidates who take positions elsewhere. Researchers have noted other central office practices, such as less attention to candidate qualifications (quality of college, college GPA, college major, or credentials) than to other factors (including personal connections), that undermine instructional quality (Browne & Rankin, 1986; Haberman, 1995; Johanson & Gips, 1992; Pflaum & Abrahamson, 1990; Wise, Darling-Hammond, & Berry, 1987). Anderson (1988a) summarized similar problems in districts' recruitment of principals. District practices that assign new teachers to the most challenging classrooms and schools have also undermined their ability to recruit and retain good teachers. Arguing from case study analyses, Snyder (1999) suggested that districts create recruitment systems focused on regional (and even national) colleges, data-management systems that make the recruitment process more efficient, and a more welcoming atmosphere that will help to attract high-quality candidates.

Districts also need reliable induction systems for the new faculty and principals they recruit. Darling-Hammond and colleagues (1999) reported that the traditional "sink-or-swim" situation new teachers generally found themselves in has improved nationally over the past decade, with more than half of new public school teachers reporting they had experienced some sort of induction program (Darling-Hammond, 1997). But according to research cited by Darling-Hammond, these induction programs tend to offer only the minimum in support to new teachers, and do not distinguish well among the various needs of new teacher graduates, more experienced teachers new to a system, and the various grade levels and subject areas of new teachers. The expansion of teacher mentoring programs and professional development schools that participate in the induction process for new teachers is an encouraging sign, but further research is needed about how districts are implementing such programs and what effect they are having on instructional quality and student achievement.

Professional Development for Principals

While the "effective schools" literature established a general consensus about the importance of the principal as instructional leader and linked such instructional leadership to higher student achievement (Teddlie & Reynolds, 2000), it is evident that principals do not become effective instructional leaders automatically (Wimpelberg, 1987). Or as Elmore (2000, p. 2) described it: "Relying on leaders to solve the problem of systemic reform in schools is, to put it bluntly, asking

people to do something they don't know how to do and have had no occasion to learn in the course of their careers."

Cuban (1998) pointed out that managerial and political roles have long overshadowed the instructional role of school principals. As Graham (1997) found in a survey of more than 500 principals, the majority of a principal's time is spent on "administrivia." Instructional issues receive only about 5 hours per week, and only a quarter of those surveyed view themselves as instructional leaders. Though some researchers observed that the instructional leader function can be carried out by someone other than the principal (Pajak & Glickman, 1989; Terry, 1996), others have emphasized the need for professional development for principals to help them become more effective in leading instructional improvement and raising student achievement (e.g., Anderson, 1988b). What does the existing literature suggest about the role of the district or central office in providing such professional development to principals?

Much of the literature linking the central office to principal professional development tends to be advisory, based on authors' long personal experience rather than on systematic research, and often not focused on instructional leadership. These articles touch on issues such as the strengths and weaknesses of principal training programs (Leithwood & Stanley, 1984), principal evaluation and addressing problematic performance (e.g., Bottoni, 1984; Lyman, 1987; Raisch & Rogus, 1995), or training and supporting principals to deal effectively with faculty problems (O'Neil & Adamson, 1993; Painter, 2000). Some research studies reported simply on survey data that either directly or indirectly indicates what kind of professional development principals need or want from the central office (e.g., Huinker, Doyle, & Pearson, 1995; Johnson & Snyder, 1990; Poppenhagen, Mingus, & Rogus, 1980), or presented a process for central office personnel to determine the professional needs of principals (Geering, 1980; Seagren & Geering, 1980) or effectively evaluate their performance (Duke & Stiggins, 1985; Valentine & Bowman, 1988). Pugh's (1987) case study of a central office initiative to help principals conduct action research found that a district's research and evaluation unit could be useful in facilitating a process of principal reflection that leads to increased levels of instructional leadership and school improvement. Evans and Mohr (1999) also emphasized the importance of the kind of reflective analysis by principals encouraged in action research (including analysis of student work).

We regard the most useful research thus far regarding the professional development of principals to be found in case studies of districts focused on reform. Fink and Resnick's (1999) case study described the conceptual foundation and process for "developing principals as instructional leaders" undertaken by New York City District #2. Viewing professional development for principals as a "cognitive apprenticeship" aimed at developing nested learning communities of principal, teachers, and students within a school, the District #2 model involves several components:

1. monthly day-long conferences for principals on instructional initiatives;
2. enrollment in at least one seminar or institute (often provided externally);
3. support groups for principals to build leadership skills (principals share problems and get feedback);
4. principal study groups (focusing on particular instructional practice issues or content areas);
5. a "buddy" system to provide peer learning and formalized mentoring for new principals;

6. inter-visitation in which principals visit each others' schools; and
7. individualized coaching from a central office supervisor, involving a supervisory "walkthrough" of the school.

Elmore and Burney (2000) summarize findings from interviews with new principals experiencing the District #2 interventions. Besides the "Aspiring Leaders Program," a fully paid, one-year program (combining university coursework with intensive internships with experienced principals) leading to certification for principalship, the new principals experience a formalized mentoring program during their first year on the job. According to Elmore and Burney (2000), these principals found the support structures much more useful than any formal training in educational administration.

Hightower (2002) and Darling-Hammond and colleagues (2002) have documented the extension of this model of principal professional development to San Diego. A survey of principals in San Diego found widespread positive reactions to the instructional leadership support structures provided by the district, and considerably more widespread perceptions (compared to a survey of San Francisco Bay Areas principals) that the district was focused on instruction and promoted development for principals and teachers (Darling-Hammond et al., 2002). Though principals suggested ways in which district support could be improved even further, and voiced concern about the higher stakes for principals under this reform effort (15% of principals have been replaced since the reform began), they were still generally supportive of the reforms. While student achievement has risen in District #2 and San Diego, there is no conclusive evidence yet of a causal connection between achievement and efforts to provide professional development for principals.

In comparison, studies of Philadelphia's Children Achieving reform (Spiri, 2001; Christman, 2001) illustrated the need for more focused support structures from the central office to help principals execute their roles as instructional leaders. The district had initiated a support group for 12 principals who were asked to reflect critically on the teaching and learning going on in their schools. These principals voiced a "broad and vague notion of instructional leadership" (Spiri, 2001, p. 16) and had little basis on which to judge their effectiveness. Many viewed the professional development of their staff as the responsibility of the district, possibly because, in spite of the school-based management rhetoric associated with the Children Achieving initiative, they still experienced interference and opposition from their district superiors (cluster leaders) when they took any initiative. As Spiri concluded:

> Nowhere in the rhetoric or design of Children Achieving is the essential role of the principal as site-based instructional leader defined or developed. In the absence of clear language about the significance of their role, the principals have been left to make sense of the new structures and instructional imperatives based on their cultural experiences within a district that had functioned quite differently than the one conceived in the Children Achieving plan.

Spiri noted that 8 of the 12 principals in the study left the principalship in Philadelphia, and subsequent developments have shown that student achievement levels did not rise enough to forestall the state's decision to turn many Philadelphia schools over to private groups such as the Edison company (Gewertz, 2002). Similarly, Binkowski, Cordeiro, & Iwanicki's (1995) study of two high-

performing and two low-performing schools within the same district emphasized the importance of principal leadership in focusing staff on instructional issues and pointed to the need for central office intervention when principals do not exert this leadership.

Professional Development for Teachers

While virtually no one questions the need to develop human capital among teachers, the issue of the district role in this process has been subject to much debate. There has been considerable criticism of the traditional role of the district central office in professional development, especially when it is bureaucratically organized, generic in approach and not directly related to the instruction teachers need to give in the classroom, and treats teachers as passive recipients of scattershot training rather than active participants in an ongoing process of training within a community of learners (Fullan, 1991; Hawley & Valli, 1999). Little (1993) pointed out that the prevailing "training model" of professional development for teachers does not fit well with the contemporary educational reform themes focused on 1) standards/curriculum/pedagogy; 2) equity; 3) student assessment; 4) social organization of schooling, or 5) professionalization of teaching). Low levels of interaction between principals and central office personnel regarding staff development characterize many schools and districts (Di Natale, 1994). Some research studies have found that central office supervisors spend more than 40% of their time on activities unrelated to improvement of instruction (Burch & Danley, 1980) and that central office staff is unaware of curriculum and instruction practices at schools in their district (Bogotch & Brooks, 1994; Bogotch, Brooks, MacPhee, & Riedlinger, 1995; Wimpelberg, 1988). Corcoran and colleagues (2001) found that districts focused on the training process rather than on content in professional development, did not appear influenced by research evidence about effective practices, offered a large variety of training options with no visible focus, and did not attempt to evaluate objectively what effect the training had on instructional practice or student achievement. A recent study of a stratified national random sample of 363 districts found a relationship between certain central office management strategies (aligning professional development to standards and assessments and involving teachers in planning of professional development) and professional development characteristics deemed by recent research studies to be of "higher quality" (e.g., active learning in study groups or networks and collective participation of teachers from same grade/subject area/school). The study did not address the translation of professional development into improved instruction and student achievement (Desimone, Porter, Birmon, Garet, & Yoon, 2002).

Considerably more attention needs to be paid to theories of adult learning and how teachers learn and put into classroom practice what they do learn (Spillane, 2000). As Elmore (1996) has argued, pursuit of large-scale reforms necessitates focused attention on how to motivate teachers to change their practices. Districts need to create the kinds of incentives and support structures that will encourage and enable new teacher learning and changed instructional practice to occur.

The growth of networks linking individual schools sharing common reform designs or funding sources has in some ways sought to replace the district as a source and provider of professional development (Elmore & Burney, 1997). In an era of school-based management, many have observed the need for a transition in the role of the central office from regulator to service-provider, particularly in the area of professional development (Asayesh, 1994; Delehant, 1990;

Flynn, 1998; Hirsh & Sparks, 1991; Kentta, 1997; Parsley, 1991; Polansky, 1998; Snipes, Doolittle, & Herlihy, 2002; Wood, 1997). A research study of high-performing high-poverty schools from various California districts concluded that the district office supported schools in raising student achievement by providing latitude and flexibility at the building level and the resources to support needs identified by the school (Rossi, 2000).

Finding the proper balance for the central office, between being responsive to schools as a "service organization" and playing a more active role of pointing schools in particular staff development directions, has proved particularly important, especially in light of research studies that documented unmet professional development and instructional guidance needs among both new and more experienced teachers and claimed that central office direction would have been useful (Firestone, Rosenblum, & Webb, 1987; Grossman, Thompson, & Valencia, 2001; Wong, Anagnostopoulos, Routledge, & Edwards, 2001). Organizations such as the National Middle School Association have emphasized the importance of the central office providing "consistent, high-quality professional development for teachers, principals, and parents" (Swaim, 1996, p. 8). But whole-school reform developers have preferred that the district not become too prescriptive in its professional development, allowing flexibility for teachers to be trained in the particular curriculum and instructional practices of the model (e.g., Mac Iver & Balfanz, 2000; Slavin & Madden, 1999).

Analysis of a conscious, purposeful central office role in developing human capital among district teachers is probably best illustrated in the case studies of professional development in New York City District #2, which provide a promising framework for the role of the district office in professional development and evaluating the effectiveness of particular strategies. Elmore and Burney (1997) summarized the district strategy for professional development as (1) "a set of organizing principles about the process of systemic change and the role of professional development in that process" and (2) "a set of specific activities, or models of staff development, that focus on system-wide improvement of instruction" (p. 6). The organizing principles include a single-minded focus on instruction and recognition that "instructional change is a long, multi-stage process" that needs to take place in a collegial environment under a clear set of expectations. In District #2, professional development is not a specialized central office function as it is in many districts, divorced from management and the work setting. Rather, it is "management strategy rather than specialized administrative function. Professional development is what administrative leaders do when they are doing their jobs.... Professional development permeates the work of the organization and the organization of the work" (p. 12). Professional development models used within the district include: 1) the professional development laboratory, 2) instructional consulting services, 3) inter-visitation and peer networks, 4) off-site training, and 5) oversight and principal site visits.

Other studies of professional development in District #2 have elaborated some of these principles. Stein, D'Amico, and Israel (1998) found that administrators support literacy instruction by first identifying teachers' instructional needs and providing support (such as more specification about the instructional practice, time for teachers to visit other teachers' classrooms to see practice in action, probing questions of teachers after observation in classroom, help with management issues). They also stressed the need for administrators to help teachers identify unmet student needs and make programmatic adjustments. This model of professional development focuses on classroom

practice and individual coaching, and depends on developing common understandings about what good practice is and when children's needs are being met. Resnick and Glennan (2001) emphasized that the District #2 professional development is linked directly to the instructional program taught by teachers (not generic) and involves on-site coaching and study groups for educators. Several studies of professional development in District #2 have also contributed to our understanding of the importance of content-specific training for teachers and creation of professional communities focused on substantive knowledge as well as pedagogy (D'Amico, van den Heuvel, & Harwell, 2000; Stein & D'Amico, 1999; Stein, Harwell, & D'Amico, 1999). These studies are built on other research focused on content-specific issues in professional development (Price, Ball, & Luks, 1995).

This focus on district-level professional community echoes the work of McLaughlin (1992) and McLaughlin and Talbert (1993) and underscores the social capital component emphasized by Spillane and Thompson (1997). Districts develop social capital by creating a shared culture of instructional improvement, a professional community that extends to relationships with external actors who can increase a shared district knowledge of reform issues and research-backed instructional practices.

Physical Capital/Material Resources

The process of human and social capital development among teachers is closely linked to the physical capital resources available and how districts distribute these among schools. Studies of professional development have emphasized the need for central offices to assure shared planning time for teachers, as well as adequate time for quality professional development (David, 1990; Elmore & Burney, 1999). The District #2 model of professional development requires that principals and lead teachers be freed from other responsibilities to have time to spend observing and coaching teachers in their classrooms. Price and colleagues (1995) have also demonstrated that a district's willingness to "marshall resources for reform" is linked to central office administrators having more than just a surface understanding of the issues in standards-based reform in subjects such as mathematics. In addition, the district office supports (or thwarts) good instructional practice by acquiring and distributing instructional materials and providing budgetary information and flexibility to schools (Cawelti & Protheroe, 2001; Mac Iver & Balfanz, 2000).

Linkages between Professional Development and Achievement

Since much of the literature on professional development fails to make any linkages to student achievement (Kennedy, 1998), it is not surprising that few studies of the role of the central office in staff development make such a linkage either.[4] One recent study of professional development conducted by central office curriculum specialists among middle grades language arts teachers did include evidence of improved student achievement linked to the efforts of the central office (Confer, 1999). Weathersby and Harkreader (1999) found no direct effect of type of district leadership on the relationship between staff development and student achievement in their study of low- and high-

[4] For recent evidence of positive links between professional development and student achievement, see Smith, 2001; Cohen & Hill, 2000; Sherman & Jaeger, 1995; Flecknoe, 2000; Kahle et al., 2000; Langer, 2000.

achieving districts in Georgia. But their findings about the importance of collaborative planning by teachers and a focus on the classroom and student achievement do suggest issues that need to be emphasized in district office leadership of staff development efforts within schools.

Studies of District #2 have thus far found little direct relationship between the professional development component of the district "model" and student achievement (Harwell, D'Amico, Stein, & Gatti, 2000; Resnick & Harwell, 2000), though D'Amico, Harwell, Stein, & van den Heuvel, (2001) found a moderate relationship between classroom achievement and teachers' perceptions of the quality of professional development in mathematics (the same relationship for reading was not significant). It is possible that more nuanced measurement of the various model components and larger, more longitudinal samples will yield more evidence of a relationship in future studies. Fisher (2001) reported evidence of improved student achievement in an inner-city San Diego high school related to professional development focused on specific instructional strategies.

LINKING EVALUATION RESEARCH TO DISTRICT POLICYMAKING

As Corcoran and colleagues (2001) have emphasized, the need for an "evidence-based" culture in the district office is essential to measure the effects of reform components on instructional practice and student achievement, and ascertain what changes need to occur to promote increased achievement. Though the current policy context of increased accountability has forced schools and districts to focus more intently on student achievement data, the CPRE comparative district study has pointed out the need for greater cohesion between evaluation research and central office policymaking.

The Center for the Study of Evaluation (CSE) studies of school district research offices, now more than two decades old, laid the foundation for research understanding of the link between district office evaluation efforts and student achievement. The seminal pioneering work of Lyon, Doscher, McGranahan, and Williams (1978, 1979), the "Evaluation and School Districts Project," sought to identify factors that contributed to the research office's participation in instructional change (the intermediary factor influencing student achievement). As Williams and McGranahan (1983) pointed out, however, the CSE studies uncovered "considerable evidence that in many school districts, evaluation units have never played a very significant role in local school district decision making, in spite of their potential to do so" (p. 2). Before increased accountability pressures, even the use of standardized test data by central office administrators was limited (David, 1978; Sproull & Zubrow, 1981a, Sproull & Zubrow, 1981b), though mandatory statewide testing and stricter accountability measures resulted in greater central office attention to test results and curriculum definition (Corbett & Wilson, 1987; Corbett & Wilson, 1989). Institutional or organizational impediments to the use of evaluation data to inform school and district policy were found in studies by Daillak (1980), Grusky (1980), O'Reilley (1980), and O'Shea (1980), though creative evaluators could pursue their goals of instructional improvement through informal means and channels.

Several studies uncovered differential levels of evaluation use, contributing to a deeper understanding of the issues involved in linking evaluation to school improvement policy-making and student achievement. Stecher, Alkin, & Flesher (1981) qualified their conclusion that "school

decision makers did not frequently rely upon evaluation when they made decisions" (p. 122) by emphasizing that evaluation data played a more important role in the "problem recognition" stage of the broader decision-making process. This study, along with the work of Pechman and King (1986), examined different types and levels of evaluation use among different sets of actors within the school system. Other researchers articulated ways to address particular issues in the evaluation process to promote its greater use in school decision-making, including providing opportunities for greater collaboration between the district research office staff and teachers, and assuring that results are presented in a timely and user-friendly manner (Burry & Alkin, 1984; Burry, Alkin, & Ruskus, 1985; Herman, 1985; Lewis, 1985; McDaid & Davis, 1991; Mitroff, 1982; West & Rhoton, 1994).

Researchers identified several factors that inhibited districts from focusing on the link between evaluation and instruction: 1) rapidly changing environmental conditions (changes in student population, staffing, budget levels); 2) permeable boundaries (pressures from outside interests that took precedence over pursuit of instructional excellence); 3) "loose coupling" (Weick, 1976, 1982)—weak links between individual classrooms and schools and central office decision-making structures, resulting in teacher isolation; 4) goal ambiguity (the district's inability to formulate specific enough goals to be able to link instruction and assessment); and 5) a "weak technical core" (paucity of research studies linking learning outcomes to instructional methods) (Bank, 1981; Bank & Williams, 1983; Williams & Bank, 1982a, 1982b, 1983). As these researchers pointed out, school districts were not being pressured in the early 1980s (before the current era of high-stakes accountability systems) to consider the link between instruction and student test scores, and both teachers and administrators were inclined to attribute lower scores to student demographics rather than to instructional variables.

At the same time, these researchers also identified factors shared by districts that were seeking to systematically link evaluation and analysis of student achievement to instructional practice. Of primary importance was the existence of district leaders who believed in making this link, what Williams and Bank (1982a, 1982b) referred to as "idea champions." The district also needed a stable core group of administrators (staff turnover was detrimental) and people with a comprehensive rather than an ad hoc approach to problem analysis. Another important characteristic for district staff was a tolerance for ambiguity and frustration, since linkage arrangements tend not to develop in a linear fashion but require the merging of independent components. Or, as Williams and Bank (1982b) summarized it, the necessary components for this linkage to occur were *ideas* (a shared, coherent philosophy of the necessary linkage between instruction and evaluation of student outcomes through testing), *operations* (technical capacity in computer operations and professional development provision), and *coordinating mechanisms* (structures to promote communication among the various district offices and principals and classroom teachers). Bank (1981) further identified important central office management strategies that contributed to linking evaluation and instructional practice: 1) a personnel-improvement-oriented staff development strategy; 2) a building-oriented, problem-solving strategy; and 3) an instructionally-oriented, objectives-based strategy.

Some studies of districts with a focused link between the evaluation office and instructional improvement efforts reported evidence of improvement in student achievement, though it was

problematic to infer causality (e.g., Crabbe, Swainston, & Williams, 1983) and the reports were sometimes based on district perceptions that had not been independently confirmed (e.g., Swainston, 1982; Williams & Bank 1982). Besides the studies cited above, our ERIC and related searches uncovered few other citations regarding research or evaluation at the central office level of the school system, much less research studies showing any impact of this on student achievement. Several case studies of research and evaluation offices offered descriptive details of the creation of such offices (Berry, 1985), models of systematic administration of standardized tests (Matter & Ligon, 1983), technical assistance to schools in the process of restructuring or conducting planning for improvement (Borton, 1990; Crawford & Purser, 1988), support for action research (Pugh, 1987), and recommendations (based on surveys of principals and teachers) for how such offices can help support school improvement (Claus & Chen, 1982; Knudson & Wood, 1998). Other studies advocated practices for evaluation offices, such as establishing effective feedback loops regarding testing data between school sites and the central office (Clarke, 1983) and eliminating bottlenecks that affect the timeliness of evaluation reports and their usefulness to decision-makers in the school system (Lewis, 1985).

Recent studies (e.g., Mac Iver & Balfanz, 2000; BASRC, 2000) have pointed out that some school districts are unable to supply schools' needs for data or rich data analysis, often because they lack the skilled human resources to do so. Keeney's (1998) Annenberg Challenge Sites report tended to marginalize the role of the district evaluation office, asserting that "typically, such support has been provided by consultants from universities, state departments of education, or educational support groups" (p. 17). Stringfield (1997) has forcefully demonstrated the need for school districts to become "high reliability organizations" that not only build rich databases but also institute processes for assuring that data are considered by policymakers using formal, logical decision analysis.

Though we have been unable to find research studies of district evaluation offices comparable to the CSE studies of two decades ago, several comparative district studies have identified or investigated the processes central offices use to encourage data-driven decision-making (Armstrong & Anthes, 2001; Massell, 2000; Massell, 2001; Snipes, Dolittle, & Herlihy, 2002). Massell (2000, 2001) found considerable variation in how districts are promoting the use of data to improve instruction and student achievement, and suggested that the variation was linked more to administrator beliefs about the usefulness of data-based decision-making than to the state policy context (degrees of high-stakes accountability). Massell also emphasized the continued need to help school leaders acquire and interpret data that will help them to identify what instructional changes need to occur to improve student achievement, an issue also emphasized by Armstrong and Anthes (2001) and Snipes and colleagues (2002).

After two decades of national movement towards standards-based reform and greater accountability, the 2001 reauthorization of the Elementary and Secondary Education Act, now famous as the *No Child Left Behind* (NCLB) act, will undoubtedly have a significant impact on how district offices collect data and interpret results in their efforts to pursue "adequate yearly progress" and improved student achievement (Linn, Baker, & Betebenner, 2002). NCLB requirements for states to use outcome data in the improvement planning process should encourage more studies of

how central offices vary in their effectiveness in helping schools to analyze data and draw conclusions about necessary steps in an improvement process. Unfortunately, the increased requirements for testing and reporting yearly progress for many disaggregated groups may encourage districts to take strategic steps unrelated to instructional improvement (such as shaping the testing pool by retention and special education classification or redefining "schools") simply to meet adequate yearly progress (AYP) requirements (Goldhaber, 2002). The critical work of studying how districts help schools to link test score results more closely to specific instructional variables that influence student achievement remains to be done.

SUMMARY AND CONCLUSIONS

What have we learned from this literature review about the role of the central office in improving instruction and student achievement?

- Those who seek to reduce or eliminate the role of a district central office can indeed cite many examples of how individual schools (including charter schools) have improved instruction and student achievement without the direct help of a district office. But many of the external partners that have helped schools achieve these results do point out ways in which central office logistical support is crucial for continued success.

- Despite the much-heralded success stories of individual schools, most (especially among those serving low-income populations) cannot improve instruction and achievement without some outside help, whether from the district office or some other external partner (whole-school reform program, university school of education, or other education-focused group). Neither charter schools nor school-based management has proved to be a silver bullet.

- Despite many examples of ineffective central offices, this structure is a logical source of capacity-building for schools to improve instruction and achievement, and there are case study examples of districts that have achieved some level of success in this area. Important areas for capacity-building noted in the literature include:
  - Advising on good curriculum and instructional practice;
  - Recruiting and equipping principals and teachers;
  - Helping school staff to analyze data and decide what instructional changes need to be made; and
  - Providing administrative support so that good instruction can occur.

- Most literature about the central office is either mainly descriptive or prescriptive, based on personal experiences of the authors.

- Many of the available research studies tend to focus narrowly on issues such as time use by central office administrators, surveys of what school-based personnel want from the central office, or central office administrators' perspectives on particular reform initiatives.

- Among the most useful recent research studies, there appears to be consensus about the importance of:

- A district culture emphasizing that achievement is the primary responsibility of every staff member in the district and the central office is a support and service organization for the schools;
- A primary focus on improving instruction, accompanied by a high level of resources devoted to coherent professional development linked to research-based practices;
- Focused attention on analysis and alignment of curriculum, instructional practice and assessment; and
- Professional development for principals and teachers in interpreting data to make good instructional decisions.

- The most useful recent research studies tend to fall into three main categories: 1) district outlier studies; 2) district case studies; and 3) comparative district studies. There are particular methodological problems with drawing conclusions from most of these studies:
  - District outlier studies have summarized characteristics of high-performing districts, but generally have not made comparisons with central office activity in lower-performing districts (recent work by Snipes, Dolittle, and Herlihy [2002] is a welcome shift in this direction).
  - District case studies may have longitudinal data over time, but generally have not included data from comparison districts.
  - Comparative district studies have generally not yet examined student achievement outcomes.
- There are some promising attempts to link individual student achievement to variations in how classroom teachers and school principals have experienced district central office reform activities (professional development strategies, etc.), but more longitudinal research is essential.

As we consider future research directions regarding the linkage between district central offices and student achievement, it is useful to focus specifically on what we know to be the most important direct predictors of student achievement. Next to home and family factors, the "teacher qualifications" variable (expertise, knowledge, skill, education, certification, experience) has been shown to explain the most variation in achievement (Armour-Thomas et al., 1989; Ferguson, 1991; Greenwald, Hedges & Laine, 1996; Sanders & Rivers, 1996). Though Darling-Hammond and Ball (1998) cite this body of research to argue primarily for state-level policy reforms in the design of teacher education and certification requirements, their recommendations related to recruitment and training of principals, professional development and reward structures for teachers, and organization of the school day point out numerous important roles for central office administrators (at least until their goal of significantly higher professionalization of the teaching force is achieved and capacity-building from the district may no longer be needed at most schools).

We suggest that this link between teacher qualifications and student achievement assumes an intermediary variable, "quality of classroom instruction," that is the direct predictor of achievement. This concept of the intermediary variable is a simplification of the model proposed by Stringfield (1994) that builds on the work of Slavin (1987) and posits a four-part "QAIT" (quality, appropriateness, incentive, and time of instruction) with the following components: regular classroom, compensatory education, special programs, and additional input from parents at home. We include "opportunity to learn" measures under this umbrella of "quality of classroom instruction." In Figure 1 we propose a model to guide future research that expands the "school" and

"district" components of the Stringfield (1994) model to include several school/classroom-level variables either shown or posited by earlier research to influence the quality of classroom instruction (a variable that is difficult to measure directly on a large scale because of the labor-intensity of classroom observation research), together with district-level variables shown by this review to influence the school/classroom variables. School/classroom level predictors of the quality of classroom instruction include: teacher qualifications (degree, certification, years of experience, etc.), quality of professional development experienced by teachers, quality of curricular materials used in classroom, and instructional leadership from principal. The district-level variables (practices) that influence each of these variables in the model include: hiring practices for teachers and principals, curricular and instructional guidance and materials provided to schools and teachers, district support to principals in their instructional leadership role, and the district role in assuring that teachers receive quality professional development tailored to increase the quality of their classroom instruction (see Figure 1). Although full operationalization of this model is beyond the scope of this review, we suggest potential measures or indicators for each of the district-level factors below.

Hiring Practices

To what extent does the district:

- Use sophisticated information technology in personnel systems?
- Advertise positions widely (including through the web site)?
- Engage in recruitment efforts at colleges of education (including personal visits)?
- Set high standards for teacher quality?
- Emphasize and execute "welcoming" policies in recruiting new staff?
- Make hiring decisions early (in comparison to surrounding districts)?
- Maintain a database of qualifications of applicants and hirees (for analysis of teacher qualifications variable at next level of the model)?
- Analyze the outcomes of hiring practices and make changes to increase the qualifications of teachers hired?

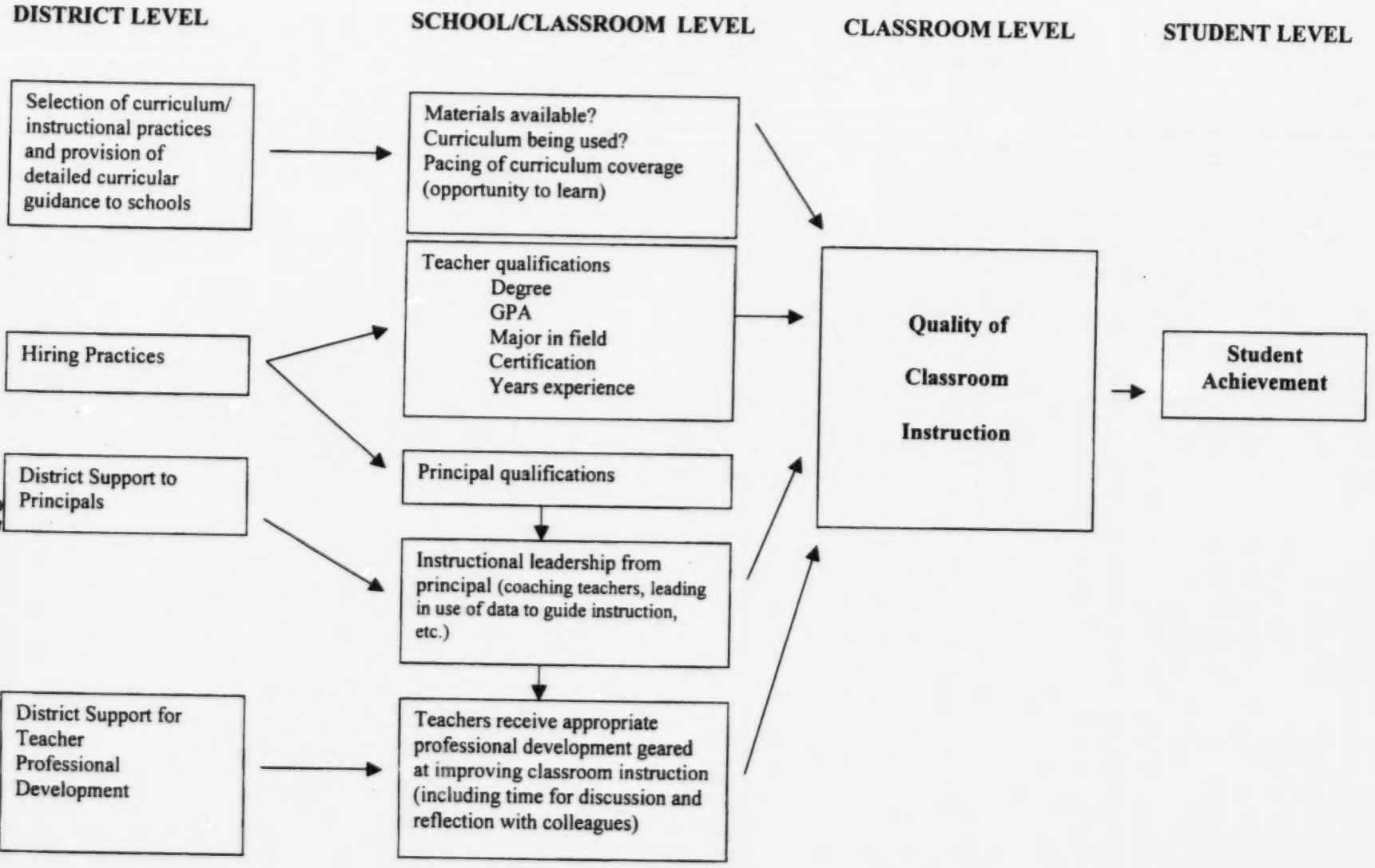
Curriculum/Instruction Guidance and Support

To what extent does the district:

- Evaluate the effectiveness of different curricular/instructional practices in the district?
- Make decisions about textbook/curriculum adoptions based on evidence of effectiveness (using research conducted internally and elsewhere)?
- Assure that the curriculum, instruction, and assessment are aligned?
- Provide materials to schools in a timely fashion?
- Provide detailed guides to schools and teachers about how to use the curriculum (e.g., pacing guides, sample lesson plans, guides for assessment of student learning, etc.)?

Figure 1

Model of Variables Influencing Student Achievement at the Classroom, School, and District Level


DISTRICT LEVEL
SCHOOL/CLASSROOM LEVEL
CLASSROOM LEVEL
STUDENT LEVEL
Selection of curriculum/ instructional practices and provision of detailed curricular guidance to schools
Materials available?
Curriculum being used?
Pacing of curriculum coverage (opportunity to learn)
Hiring Practices
Teacher qualifications
Degree
GPA
Major in field
Certification
Years experience
Quality of Classroom Instruction
Student Achievement
District Support to Principals
Principal qualifications
Instructional leadership from principal (coaching teachers, leading in use of data to guide instruction, etc.)
District Support for Teacher Professional Development
Teachers receive appropriate professional development geared at improving classroom instruction (including time for discussion and reflection with colleagues)

Support to Principals

To what extent does district provide:

- Mentoring programs for new principals?
- Hands-on guidance (including school visits) from central office supervisor?
- Professional development in how to be an instructional leader
- Professional development in how to use data to improve instruction?
- Relevant student data in a timely fashion?
- Relevant budget information in a timely fashion?
- Relief from bureaucratic demands that take time away from instructional leadership?

Professional Development Support to Teachers

To what extent does the district provide support for:

- Mentoring programs for new teachers?
- Professional development linked to specific curriculum and textbooks used?
- Follow-up, including hands-on guidance (with classroom visits) from central office staff or highly qualified coaches?
- Time for teachers to observe master teachers, talk with colleagues about instructional issues, reflect on learning to better put it into practice?
- Instruction in how to use data from classroom assessments to improve instruction?

A more complex model would also include factors influencing district practices, such as state or union policies related to hiring practices, financial resources available, quality of central office staff, and the political context (state, local community, school board, etc.) influencing district decisions (e.g., Land, 2002). We leave it to others to begin the process of operationalizing those contextual variables surrounding district practices.

Researchers could then examine one or more linkages in this proposed model. For example, one could collect data about the hiring practices of several districts over time and analyze how variation in hiring practices is related to variation in new teacher qualifications and ultimately student achievement. Or one could focus specifically on one of the other linkages in the model. Ideally, research studies would examine the combination of district-level practices, given research that has previously suggested that it is the combination of practices (not any single one in isolation) that leads to improved student achievement (Snipes, Doolittle, & Herlihy, 2002).

Given the significant amount of discussion in current literature about "data-driven instruction," it would also be useful to conduct a comparative study of district office evaluation and research units, building on the prior work at the Center for the Study of Evaluation and the recent work of Armstrong and Anthes (2001), Massell (2001), and Snipes, Dolittle, and Herlihy (2002). What kinds of evaluation reports do these offices produce and how are they used at the school level to improve instruction and achievement? What activities do these units within the central office conduct to build capacity at the school level to collect and interpret data in a way that facilitates instructional improvement and improved student achievement? How are variations in this type of district-level activity related to variation in student achievement and achievement gains across districts?

Districts such as New York District #2 and San Diego are unlikely to cooperate with randomized experimental designs that could help to determine the relative importance of particular components of the overall district reform model in producing student achievement gains. Nevertheless, continued study of the natural variation of central office activity within such reform-oriented districts, already begun within District #2, will be useful additions to the research base. Such studies need to examine the previous problems in measurement and devise better measures of the intervention variables as well as additional measures of the achievement variables. It is also essential that these studies become more longitudinal and examine a wider range of grade levels. Inclusion of comparable analyses of data from comparison districts not engaged in the activist central office level reforms is another essential component for further research on central office influences on student achievement.

As this review has shown, calls for the "demise" of the school district office appear largely premature. While there are certainly numerous examples of ineffective district offices, those who advocate doing away with them altogether have yet to propose solutions that will raise achievement in more than a small group of schools in any geographic area (and, in particular, in the many urban areas of the country). This review has highlighted a growing body of research that seeks to identify central office characteristics that distinguish districts effective at raising student achievement from those that are not. While there is considerably more research to be conducted before we can draw more than preliminary conclusions, it is time to bring the district back into the mainstream of research on school reform—even if such research cannot be conducted according to the randomized study designs that have become the standard for educational researchers. If a key determinant of student achievement is the quality of instruction received by the student, researchers must continue to investigate how the quality of instruction can be improved in as many classrooms as possible. While a degree of school-level autonomy is essential in improving instruction for students, and re-centralization is certainly not the answer, the role of the district central office in positively influencing those factors that raise the quality of classroom instruction cannot be ignored.

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